

## Concepts for Structurally Connected Interferometers for the Terrestrial Planet Finder Mission

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The results of extensive studies of concepts for structurally connected interferometers for the TPF mission will be presented. Straw man concepts were developed to meet the science requirements for detecting planets around nearby stars. A candidate star list was developed. Using this list and the science requirements, trade studies were made to evaluate and bring forward promising configurations. The trade studies considered launch packaging constraints, aperture size and spacing, beam combiner complexity, imaging capability, target characteristics, etc. Trade study results show that the dual chopped Bracewell configuration is the simplest system capable of providing a reliable signal modulation and of meeting the science objectives. Members of the Darwin team will participate in future studies.

